

fruitless, although we left numerous (eleven) voicemail messages which were not returned. However, it is believed that the drawings as now submitted are fully in compliance with the rules. They have been accepted in all the other countries where these drawings have been submitted.

In the Claims:

In the claims, cancel claims 40 through 76 and replace them by claims 77 through 117 as follow:

77. A monoclonal antibody or a fragment thereof capable of binding only to native disease-specific prion protein (PrP^{Sc}) and not to native normal prion protein (PRP^C) in an antigen-antibody complex.

78. A monoclonal antibody according to claim 77 capable of recognizing at least one of 3 distinct arrays on the prion protein with amino acid sequences according to SEQ ID NOs: 7, 8 and 9.

79. Monoclonal antibodies or fragments thereof capable of binding to prion protein in an antigen-antibody complex which specifically recognize an array on the prion protein with an amino acid sequence according to SEQ ID NO: 5 or SEQ ID NO: 6.

80. A monoclonal antibody according to claim 77 or 79 wherein the prion protein is soluble.

81. A monoclonal antibody according to claim 77 or 79 wherein the prion protein is insoluble.

82. A monoclonal antibody according to claim 77 or 79 wherein the prion protein is a recombinant prion protein.

83. A monoclonal antibody according to claim 77 or 79 wherein the prion protein is reduced.

84. A monoclonal antibody according to claim 77 or 79 wherein the prion protein is oxidized.

85. A monoclonal antibody which comprises an epitope binding fragment of anyone of the monoclonal antibodies according to claim 78 or 79.

86. A monoclonal antibody according to claim 77 or 79 coupled to other molecules especially fragments of other antibodies, enzymes or organic chemical compounds.

87. An antibody raised against the binding region (idiotype) of the antibodies according to claim 77 or 79.


88. A hybridoma cell line capable of producing a monoclonal antibody according to claim 77.

89. A hybridoma cell line capable of producing a monoclonal antibody according to claim 79.

90. A hybridoma cell line according to claim 88 deposited under DSM ACC2298 capable of producing a monoclonal antibody which recognizes 3 distinct arrays on the prion protein with amino acid sequences according to SEQ ID NOs: 7, 8 and 9.

91. A hybridoma cell line according to claim 89 deposited under DSM.ACC2295 capable of producing a monoclonal antibody which recognizes an array on the prion protein with an amino acid sequence according to SEQ ID NO: 6.

92. A hybridoma cell line according to claim 89 deposited under DSM ACC2296 capable of producing a monoclonal antibody which recognizes an array on the prion protein with an amino acid sequence according to SEQ ID NO: 5.

 93. A monoclonal antibody produced by a hybridoma cell line according to claim 90.

94. A monoclonal antibody produced by a hybridoma cell line according to claim 91.

95. A monoclonal antibody produced by a hybridoma cell line according to claim 92.

96. A recombinant protein derived from cloned protein-coding sequences from cell lines according to claim 90.

97. A recombinant protein derived from cloned protein-coding sequences from cell lines according to claim 91.

98. A recombinant protein derived from cloned protein-coding sequences from cell lines according to claims 55.

99. A recombinant expression vector for the expression of the bovine prion protein.

100. A recombinant expression vector according to claim 99 which is named pbPrP3.

B² 101. The purified recombinant bovine prion protein in reduced or oxidized form or in form of a mixture thereof.

102. A recombinant protein according to claim 101, where the purified recombinant prion protein is from any species.

103. A method for the production of an antibody according to claim 77 or 79, comprising culturing a hybridoma cell line according to claim 88 or 89 and isolating the monoclonal antibody from the supernatant.

104. A method for the production of a hybridoma cell line according to claim 88 or 89, comprising administering to PrP0/0 mice (knockout mice without a functional PrP gene) an immunizing amount of a prion protein according to claim 101 or 102, removing the spleen from the immunized mice, recovering splenocytes therefrom, fusing the latter with a myeloma cell line, growing the fused cells in a selection medium, screening the antibodies in the supernatants of hybridoma cells for binding to native disease-specific and recombinant PrP and isolating the hybridoma cells producing monoclonal antibodies according to claim 77 or 79.

105. A method for the production of antibodies according to claims 77 or 79 comprising administering an immunizing amount of a prion protein according to claim 101 or 102 to PrP0/0 mice.

B2 106. A method for the production of an expression vector according to claim 99, comprising inserting a DNA coding for the bovine PrP in the correct reading frame into an expression vector.

107. A method for the production of a purified bovine PrP protein comprising culturing a microorganism or eukaryotic cell line with an expression vector according to claim 99 in an appropriate culture medium and isolating and purifying the protein.

108. A test kit for the diagnosis of prion diseases comprising one or more monoclonal antibodies according to claims 77 or 79, purified recombinant bovine PrP protein according to claim 101, nitrocellulose sheets, microtiter plates coated or covalently linked with monoclonal antibodies according to claims 77 or 79, an antibody that is coupled with an enzyme and its substrate for a detection reaction, proteinase K, blocking buffer, homogenisation buffer and a detailed description of how to perform the test.

109. A test kit according to claim 108 comprising a nitrocellulose membrane in the dipstick format coated with an antibody according to claims 77 or 79, a dilution buffer, a solution containing an antibody according to claims 77 or 79, coupled to colloids evoking a colouring reaction when present in an antigen-antibody complex, and a detailed description of how to perform the test.

B2

110. An immunological detection procedure for the detection of disease-specific PrP in biological material of an animal or human comprising treatment of a probe of said material with proteinase K and then with the monoclonal antibody according to claims 77 or 79, detecting the prion protein-antibody complex and analysing the results.

111. An immunological detection procedure according to claim 110 comprising treatment of a probe of said material with the monoclonal antibody according to claim 77 or 79 without prior treatment with proteinase K, detecting the prion protein-antibody complex and analysing the results.

112. A method according to claim 111 where instead of using a monoclonal antibody recombinant prion protein according to claim 101 is used.

113. A pharmaceutical preparation for the therapy and prevention of prion diseases comprising a monoclonal antibody or fragments thereof according to claims 77 or 79 and a pharmaceutical carrier.

114. A method for the therapy or prevention of prion diseases comprising administering to a patient suffering from such disease or being likely to becoming a victim of this disease a therapeutical or preventive amount of a monoclonal antibody according to claims 77 or 79.

115. A method for clearing biological material from prions comprising treating said material with a monoclonal antibody according to claims 77 or 79.

B2 116. A method for the therapy or prevention of prion diseases, or the vaccination against prion diseases comprising administering to a patient or an animal suffering from such a diseases or being likely to becoming a victim of this disease a therapeutical or preventive amount of recombinant PrP or fragments thereof according to claim 101 or 102.

117. Use of a monoclonal antibody according to claims 77 or 79 or recombinant PrP or fragments thereof according to claim 101 or 102 for the production of a